

Abstract

A system for controlling fluid flow through i lines, wherein the i lines are connectable through tubing to i zones, respectively, and wherein $i = 1, 2, \dots, N$. The system includes at least one valve and a pressure transducer in each of the i lines, a control device for controlling the valves, and a zone pressure estimator. The zone pressure estimator is connected to the pressure transducers and is programmed to calculate an estimated pressure in each the i zones and provide the estimated pressures to the control device.